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FEB 1 6 2011 WARDEN FIRST NAMED INVENTOR

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

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APPLICATION NOT & TRADE MATERIAL DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,714 - 07/20/2006	Yair Ein-Eli	30579	6188
67801 7590 02/10/2011		EXAM	INER
MARTIN D. MOYNIHAN d/b/a PRTSI, I	NC.	PARVINI	, PEGAH
P.O. BOX 16446		ART UNIT	PAPER NUMBER
ARLINGTON, VA 22215		1731 DATE MAILED: 02/10/201	1

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 232 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 232 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

67801

7590

02/10/2011

MARTIN D. MOYNIHAN d/b/a PRTSI, INC. P.O. BOX 16446 ARLINGTON, VA 22215 PARVINI, PEGAH

ART UNIT PAPER NUMBER

1731

DATE MAILED: 02/10/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551.714	07/20/2006	Yair Ein-Eli	30579	6188

TITLE OF INVENTION: COPPER CMP SLURRY COMPOSITION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	05/10/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.
- II. PART B FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further of indicated unless corrected maintenance fee notificat	d below or directed oth	g the Patent, advance or erwise in Block 1, by (a	ders and notification of) specifying a new corre	maintenance fees wespondence address;	ill be n and/or	nailed to the current of (b) indicating a separ	correspondence address as ate "FEE ADDRESS" for
		ock 1 for any change of address)	Fe	te: A certificate of e(s) Transmittal. This pers. Each additionate its own certificate	s certific l paper.	cate cannot be used fo such as an assignmen	domestic mailings of the r any other accompanying t or formal drawing, must
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					,		(Depositor's name)
							(Signature)
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO	R	ATTOR	NEY DOCKET NO.	CONFIRMATION NO.
10/551,714	07/20/2006		Yair Ein-Eli			30579	6188
TITLE OF INVENTION:	COPPER CMP SLURF	RY COMPOSITION					
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nonprovisional	YES	\$755	\$300	\$0		\$1055	05/10/2011
EXAM	INER	ART UNIT	CLASS-SUBCLASS	7			
. PARVINI,	, PEGAH	1731	051-307000	_			
CFR 1.363). Change of correspond Address form PTO/SB "Fee Address" indi	ondence address or indication ondence address (or Cha 3/122) attached. cation (or "Fee Address or more recent) attach	nge of Correspondence	2. For printing on the (1) the names of up to agents OR, alternal (2) the name of a single registered attorney or 2 registered patent att listed, no name will b	o 3 registered patentively, gle firm (having as a agent) and the nam orneys or agents. If	t attorn	era 2	
PLEASE NOTE: Unle	ess an assignee is ident in 37 CFR 3.11. Comp	A TO BE PRINTED ON 7 ified below, no assignee oletion of this form is NO	data will appear on the T a substitute for filing at (B) RESIDENCE: (CIT	patent. If an assign n assignment. Y and STATE OR C	COUNT	RY)	cument has been filed for
Please check the appropri	ate assignee category or	categories (will not be pr	inted on the patent):	Individual Co	orporatio	on or other private gro	up entity Government
	o small entity discount p	permitted)	o. Payment of Fee(s): (Ple A check is enclosed. Payment by credit companies The Director is hereloverpayment, to Dep	ard. Form PTO-2038	is atta	ched.	hown above) iciency, or credit any extra copy of this form).
5. Change in Entity Stat	tus (from status indicated s SMALL ENTITY state		☐ b. Applicant is no lo	ngar alaiming SMA	I ENT	TTV status See 37 CF	P 1 27(a)(2)
NOTE: The Issue Fee and	d Publication Fee (if req	uired) will not be accepte	d from anyone other than				e assignee or other party in
interest as shown by the r	ecords of the United Sta	tes Patent and Trademark	Office.				
Authorized Signature				Date	······		
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This collection of informa an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V	ation is required by 37 C iality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DC	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the DOT SEND FEES OR	on is required to obtain or 1.14. This collection is e depending upon the ind e Chief Information Offi COMPLETED FORMS	retain a benefit by t stimated to take 12 ividual case. Any co cer, U.S. Patent and TO THIS ADDRESS	he publi minutes omments Tradem S. SEND	ic which is to file (and to complete, including s on the amount of tim ark Office, U.S. Depa D TO: Commissioner for	by the USPTO to process) g gathering, preparing, and ne you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	Application No.	Applicant(s)				
	10/551,714	EIN-ELI ET AL.				
Notice of Allowability	Examiner	Art Unit				
	PEGAH PARVINI	1731				
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in the or other appropriate communing GHTS. This application is subsected in the community of the communi	nis application. If not included cation will be mailed in due course				
1. This communication is responsive to <u>reply filed 11/11/2010</u>).					
2. The allowed claim(s) is/are <u>1-22,26-30,53 and 55-59</u> .	•					
 Acknowledgment is made of a claim for foreign priority una) All b) Some* c) None of the: Certified copies of the priority documents have Certified copies of the priority documents have Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). * Certified copies not received:	been received. been received in Application	No	om the			
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.						
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 			E OF			
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must (a) ☐ including changes required by the Notice of Draftspers	con's Patent Drawing Review (. s Amendment / Comment or in .84(c)) should be written on the he header according to 37 CFR sit of BIOLOGICAL MATER	the Office action of drawings in the front (not the back) 1.121(d). RIAL must be submitted. Note the				
Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material //Anthony J Green/ Primary Examiner, Art Unit 1731	6. ☐ Interview Sun Paper No./M 7. ⊠ Examiner's A	mal Patent Application nmary (PTO-413), ail Date mendment/Comment satement of Reasons for Allowanc	е			

DETAILED ACTION

Election/Restrictions

This application is in condition for allowance except for the presence of claims 31-52 and 54 directed to an invention (i.e. a method of preparing a composition) non-elected without traverse. Accordingly, claims 31-52 and 54 will be canceled by an Examiner's Amendment which appears below.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the Claims:

Claims 31-52 and 54 are canceled.

Allowable Subject Matter

Claims 1-22, 26-30, 53, and 55-59 are allowed.

The following is an examiner's statement of reasons for allowance: In view of Figure 1 of the instant application specification and corresponding description of the specification which show the criticality of pH range of 9 to 13 for a composition to form a passivating layer on a surface comprising at least 5% by weight of copper, the prior art

Art Unit: 1731

do not teach or suggest such as composition. Furthermore, the prior art do not teach such a composition which is, also, devoid of a film-forming agent, a copper complexing agent, and ammonium cations and forms a passivating layer on said surface wherein neither copper nor copper oxides are soluble in said composition.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGAH PARVINI whose telephone number is (571)272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pegah Parvini/ Examiner, Art Unit 1731

/Anthony J Green/ Primary Examiner, Art Unit 1731 Receipt date: 02/02/2011

10551714 - GAU: 1731

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031 U.S.Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Complete if Known Substitute for form 1449A/PTO Application Number 10/551,714 Filing Date INFORMATION DISCLOSURE July 20, 2006 First Named Inventor EIN-ELI Yair et al STATEMENT BY APPLICANT Group Art Unit 1793 Examiner Name PARVINI Pegah (use as many sheets as necessary) Attorney Docket Number 30579 Sheet OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Examiner Cite item (book, magazine, journal, serial symposium, catalog, etc.) date, page(s), volume-issue number(s), No.1 T^2 Initials publisher, city and/or country where published. Prasad et al. "Chemical Mechanical Planarization of Copper in Alkaline Slurry 1 With Uric Acid as Inhibitor", Electrochimica Acta, 52: 6353-6358, 2007.April

Examiner	/Darah Daraini/	Date	02/03/2011
Signature	/Pegah Parvini/	Considered	02/03/2011

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).

² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

⁶ Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. this collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Receipt date: 05/13/2010

10551714 - GAU: 1731

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S.Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Under the	Paperwork R	eduction Act of 1995, no persons are required	to respond to a			oi number.	
	Su	bstitute for form 1449A/PTO		Application Number	te if Known		
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		IATION DISCLOSURE		First Named Inventor	July 20, 2006	4 1	
Si	TATEM	IENT BY APPLICANT	1		EIN-ELI Yair o	t ai	
				Group Art Unit	1793	1	
	(use as	many sheets as necessary)		Examiner Name	PARVINI Pega	ih	
Sheet		1 Of	1	Attorney Docket Number	30579		
		OTHER PRIOR ART - NON	PATENT	LITERATURE DOCUM	ENTS		
Examiner	Cite	Include name of the author (in CAPIT					
Initials	No.1		city and/or c	ountry where published.		T ²	
	1	Response Dated 04 February 2					
		the US Patent and Trademark (Office Re.:	Application No. 10/551,71	4.		
	2	Abelev et al. "Enhanced Coppe	er Surface	Protection in Aqueous Solut	tions		
		Containing Short-Chain Alkand	oic Acid P	otassium Salts", Langmuir,	23: 11281-		
	1	11288, 2007. July		, 5 ,			
	3	Abelev et al. "Potassium Sobat	e Solution	s as Copper Chemical Mech	anical Sep. 20	06	
		Planarization (CMP) Based Slu	ırries". Ele	ectrochimica Acta. 52: 5150	-5158, 2007 ,		
	4	Abelev et al. "Potassium Sorba					
		Electrochemical and Spectroscopic Studies", Electrochimica Acta, 52: 1975-1982, 2007. February					
	5	Abelev et al. "Reprint of 'Potas	cium Carb	ate Salutions as Conner Che	mical		
		Mechanical Planarization (CM				•	
		1029, 2007. September	P) Daseu s	Siuries, Electrochimica Ac	ia, 33. 1021-		
		1029, 2007. September		NT 1 .: NC . 1 1	AU NOTE 20	05	
	6	Ein-Eli et al. "Food Preservativ	ves Serving	g as Nonselective Metal and	Alloy NOV. 20	03	
		Corrosion Inhibitors", Electroc					
	7	Ein-Eli et al. "Review on Copp					
		CMP Cleaning in Ultra Large S			chemical		
		Perspective", Electrochimica A	Acta, 52: 18	325-1838, 2007. July			
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Examiner	/Pogoh Ponrini/	Date	02/02/2011
Signature	/Pegah Parvini/	Considered	02/02/2011

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